



Michigan Department of Community Health  
Radiation Safety Section  
Website: [www.michigan.gov/rss](http://www.michigan.gov/rss)



## CURRENT OCCUPATIONAL EXTERNAL RADIATION EXPOSURE

(See instructions on reverse side)

<b>IDENTIFICATION</b>					
1. Name (Print—Last, First, Middle)			2. Identification Number		
3. Date of Birth (Month, Day, Year)			4. Age in Full Years (N)		
<b>OCCUPATIONAL EXPOSURE</b>					
5. Dose Recorded for (Specify: Whole body; skin of whole body; or hands and forearms, feet and ankles.)		6. Whole Body Dose Status (rem)		7. Method of Monitoring (e.g., Film Badge-FB; Pocket Chamber—PC; Calculations – Calc.) X or GAMMA ____ BETA ____ NEUTRONS ____	
8. Period of Exposure (From – To)	Dose for the Period (rem)				13. Running Total for Calendar Quarter (rem)
	9. X or GAMMA	10. Beta	11. Neutron	12. Total	
<b>LIFETIME ACCUMULATED DOSE</b>					
14. Previous Total (rem)	15. Total Quarterly Dose  Date                      rem	16. Total Accumulated Dose (rem)	17. Perm. Acc. Dose 5(N-18) (rem)	18. Unused Part of Permissible Accumulated Dose (rem)	

## INSTRUCTIONS FOR PREPARATION OF FORM BHS/HFS-102

The preparation and safekeeping of this form or a clear and legible record containing all the information required on this form is required pursuant to rule 245 of part 5 "Standards for Protection Against Radiation," as a current record of occupational external radiation exposure. Such a record must be maintained for each individual for whom personnel monitoring is required under rule 222 of Part 5. Note that a separate Form BHS/HFS-102 is to be used for recording external exposure to (1) the whole body; (2) skin of whole body; (3) hands and forearms; or (4) feet and ankles, as provided by Item 5 below.

Listed below by item are instructions and additional information directly pertinent to completing this form.

### Identification

- Item 1. Self-explanatory.
- Item 2. Enter either the individual's social security number or an employer-assigned unique staff identification number that can be correlated to the social security number in the employer's personnel records.
- Item 3. Self-explanatory.
- Item 4. Self-explanatory.

### Occupational Exposure

- Item 5. "Dose to the whole body" includes any dose to the whole body, gonads, active blood-forming organs, head and trunk, or lens of eye. Unless the lenses of the eyes are protected with eye shields, dose recorded as whole body dose should include the dose delivered through a tissue equivalent absorber having a thickness 300 mg/cm<sup>2</sup> or less. When the lenses of the eyes are protected with eye shields having a tissue equivalent thickness of at least 700 mg/cm<sup>2</sup>, dose recorded as whole body dose should include the dose delivered through a tissue equivalent absorber having a thickness of 1,000 mg/cm<sup>2</sup> or less.

Dose recorded as dose to the skin of the whole body, hands and forearms, or feet and ankles should include the dose delivered through a tissue equivalent absorber having a thickness of 7 mg/cm<sup>2</sup> or less. The dose to the skin of the whole body, hands and forearms, or feet and ankles should be recorded on separate forms unless the dose to those parts of the body has been included as dose to the whole body on a form maintained for recording whole body exposure.

- Item 6. This item need be completed only when the sheet is used to record whole body exposures and the licensee or registrant is exposing the individual under the provisions of subrule (3) of rule 203 which allows up to 3 rems per quarter to the whole body. Enter in this item the unused part of permissible accumulated dose taken from previous records of exposure, i.e., Item 18 of the preceding Form BHS/HFS-102 or Item 13 of Form BHS/HFS-101 if the individual's exposure during employment with the licensee begins with this record.
- Item 7. Indicate the method used for monitoring the individual's exposure to each type of radiation to which he is exposed in the course of his duties. Abbreviations may be used.
- Item 8. Doses received over a period of less than a calendar quarter need not be separately entered on the form provided that the licensee or registrant maintains a current record of the doses received by the individual which have not as yet been entered on the form. The period of exposure should specify the day the measurement of that exposure was initiated and the day on which it was terminated. For example, if only quarterly doses are entered, the period of exposure for the first calendar quarter of 1973 might be taken as running from Monday, January 1, 1973 through Saturday, March 31, 1973. If weekly doses are entered, a film badge issued Monday morning, January 1, 1973, and picked up Friday, January 5, 1973 would be indicated as Jan. 1, 1973 - Jan. 5, 1973.
- Items 9, 10 and 11  
Self explanatory. The values are to be given in rem. All measurements are to be interpreted in the best method known and in accordance with the definitions provided in part 1. Where calculations are made to determine dose, a copy of such calculations is to be maintained in conjunction with this record. In any case where the dose for a calendar quarter is less than 10% of the value specified in rule 205, the phrase "less than 10%" may be entered in lieu of the numerical value.
- Item 12. Add the values under Items 9, 10 and 11 for each period of exposure and record the total. In calculating the "Total" any entry "less than 10%" may be disregarded.
- Item 13. The running total is to be maintained on the basis of calendar quarters. Subrule (1) of rule 6 defines calendar quarter. No entry need be made in this item if only calendar quarter radiation doses are recorded in items 9, 10, 11 and 12.

### Lifetime Accumulated Dose (Whole Body)

- Note: If the licensee or registrant chooses to keep the individual's exposure below that permitted in rule 205, Items 14 through 18 need not be completed. However, in that case the total whole body dose for each calendar quarter recorded in Item 13 (or in Item 12 if quarterly doses are entered in Item 12) should not exceed 1.25 rem.

If an individual is exposed under the provisions of rule 203 complete Items 14 through 18 at the end of each calendar quarter and when the sheet is filled. Values in Item 13, when in the middle of a calendar quarter, and values in Item 18, must be brought forward to next sheet for each individual.

- Item 14. Enter the previous total accumulated dose from previous dose records for the individual (e.g., from Item 16 of Form BHS/HFS-102 or Item 11 of Form BHS/HFS-101). The total occupational radiation dose received by the individual must be entered in this item, including any occupational dose received from sources of radiation not licensed or registered by the Department. If the individual was exposed to sources of radiation not licensed or registered by the Department during any calendar quarter after completing Form BHS/HFS-101 and personnel monitoring equipment was not worn by the individual, it should be assumed that the individual received a dose of 1.25 rems during each such calendar quarter.
- Item 15. Enter the total calendar quarter dose from Item 13 (or from Item 12 if quarterly doses are entered in Item 12) and the date designating the end of the calendar quarter in which the dose was received (e.g., March 31, 1973).
- Item 16. Add Item 14 and Item 15 and enter that sum.
- Item 17. Obtain the Permissible Accumulated Dose (PAD) in rem for the WHOLE BODY. "N" is equal to the number of years of age of the individual on his last birthday. Subtract 18 from N and multiply the difference by 5 rem (e.g., John Smith, age 32 N=32, PAD = 5(32-18) = 70 rem).
- Item 18. Determine the unused part of the PAD by subtracting Item 16 from Item 17. The unused part of the PAD is that portion of the Lifetime Accumulated Dose for the individual remaining at the end of the period covered by this sheet.